

MR3529-28

Application Serial No.: 10/045,055

Reply to Office Action dated 23 October 2006

JAN 23 2007

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Office Action dated 23 October 2006. Responsive to the rejections made by the Examiner, Claims 1, 8-12, 14-15, and 17-19 have been amended for further prosecution with the other pending claims. It is believed that such amendments now further clarify the Claims' recitations.

In the Office Action, the Examiner rejected Claims 1 - 12 and 14 - 24 under 35 U.S.C. § 102(e) as being anticipated by the Hines reference. In setting forth this rejection, the Examiner correlated the constraints mentioned at paragraphs [0167]-[0168] of Hines' specification with that recited in Applicants' Claims. The Examiner also cited Hines' disclosure of space/time diagrams for disclosing event based debugging and visualization tools, attributing to them the graphic representations recited in the Claims.

As each of the newly-amended independent Claims 1, 8, 12, and 17 now further clarifies, Applicants' visual debugging approach includes among its combination of features "generation entities" which "includ[e] fields representative of at least one data structure or variable" as well as "constraints for defining relationships between respective fields." The claimed approach also includes among its combination of features "generation events" which correspond to certain "generation decisions" that are "executed during ... [a] test generation process on said constraints" as well as "said fields," with the "generation events

MR3529-28

Application Serial No.: 10/045,055

Reply to Office Action dated 23 October 2006

each modifying at least one of said generation entities," or "at least one of said field or constraints," as further clarified by the respective independent Claims. A graphical user interface is also employed to graphically represent and "concurrently display the generation entities corresponding to the generation events," with "indicia describing the respective modifications resulting from ... said generation events upon" the applicable "generation entities" such as a particular field or constraint (as the newly-amended Claims further recite).

The full combination of these and other features now more clearly recited by the pending Claims is nowhere disclosed by the Hines reference. Very telling in this regard is Hines' clear definition of its "constraints" to simply constitute "Boolean relationships between control ports," (Paragraph [0165]) which govern its debugging operation. Like the related entity, the "guarantees" which Hines defines to be "formal declarations of invariant properties of a coordination interface," (Paragraph [0125], *emphasis added*), Hines' constraints¹ serve as "invariant properties" which guide the debugging process, rather than as variable parametric quantities/qualities operated on by that debugging process. Clearly, such "constraints" cannot form the claimed constraints on which "generation decisions" may be "executed during ... test generation," (as each of the newly-amended independent Claims 1, 8, 12, and 17 recite). Nor could such constraints

¹ As Hines notes, a "constraint differs from a guarantee" only "in that the guarantee is limited to communicating in-variant relationships between components without providing a way to enforce the in-variant relationship," whereas a constraint further includes rules "to enforce certain relationships between components." (Paragraph [0167]).

MR3529-28

Application Serial No.: 10/045,055

Reply to Office Action dated 23 October 2006

of Hines be subject to "modif[ication]" by "said generation events," as Applicants' constraints and other generation entities are now more clearly recited by these Claims to be. The "invariant properties" of what Hines terms to be "constraints" flatly preclude such modification by any generation events.

Turning to the space/time diagrams such as shown in Fig. 25 of Hines, they merely represent certain events as a function of time. These events (represented by spheres 2514) plotted sequentially against time are themselves the results of certain debugging operations. Consequently, Hines' events 2514 depart from the "indicia" recited by each of Applicants' newly-amended independent Claims to be represented separate and apart from the "generation entities" and their corresponding "generation events," though "concurrently display[ed]" therewith. These indicia separately "describ[e] the respective modifications resulting from said corresponding generation events upon" the various "generation entities," including a "constraint" (as the newly-amended independent Claims respectively recite).

It is respectfully submitted, therefore, that the cited Hines reference fails to disclose the unique combination of features now even more clearly recited by Applicants' pending claims for the purposes and objectives disclosed in the subject Patent Application.

It is now believed that the subject Patent Application has now been placed fully in condition for allowance, and such action is respectfully requested.

MR3529-28
Application Serial No.: 10/045,055
Reply to Office Action dated 23 October 2006

If there are any further charges associated with this filing, the Honorable Commissioner for Patents is hereby authorized to charge Deposit Account #18-2011 for such charges.

Respectfully submitted,
For: ROSENBERG, KLEIN & LEE



Jun Y. Lee
Registration # 40,262

Dated: 1/23/2007

Suite 101
3458 Ellicott Center Dr.
Ellicott City, MD 21043
(410) 465-6678
Customer No. 04586

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office, Art Unit #2192, facsimile number 571-273-8300 on the date shown below.

For: ROSENBERG, KLEIN & LEE

Dated: 1/23/2007


Jun Y. Lee